**APPENDIX**

## **Table A1** Comparison of demographic characteristics (%) between participants and non-participants (i.e., those lost to follow-up). Counts for each subgroup are in parentheses.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Participants | Non-participants | All | p-value (test of demographic difference by participation status) |
| **Gender** |  |  |  |  |
| Female | 59(48) | 72(28) | 63(76) | 0.182 |
| **Age**  |  |  |  |  |
| Age (50-64) | 59(48) | 56(22) | 58(70) | 0.767 |
| Age (65 and above) | 41(33) | 44(17) | 42(50) |
| **Education** |  |  |  |  |
| GED or High School  | 10(8) | 18(7) | 13(15) | 0.169 |
| Some college | 37(30) | 46(18) | 40(48) |
| College and above | 53(43) | 36(14) | 48(57) |
| *N* | *81* | *39* | *120* |  |

GED (General Educational Development) is equivalent to a high school diploma in the United States. Individuals who did not complete a traditional high school program can obtain a GED by passing a series of tests that assess their knowledge and skills in core subject areas.

**Table A2** Summary statistics for end of day survey data across all survey waves. Percentage of participants answering “Yes” to categorical questions, broken down by device.

|  |  |  |
| --- | --- | --- |
|   | Fitbit | GENEActiv |
| **Device takeoff** |  |  |
| Participant reported taking off the device on a given day | 40% | 11% |
| Average number of times reported taking off the device on a given day | 1.04 | 1.00 |
| Device takeoff duration in a given day | taking off (minutes) | 82.53 | 40.75 |
| **Reasons for taking off the device** |  |  |
| To charge the device | 75% | NA |
| To dry or clean the device | 9% | 12% |
| Due to irritation, itchiness, heat, humidity or feeling uncomfortable wearing the device | 0% | 0% |
| To go to bed as I didn’t want to sleep wearing the device  | 1% | 0% |
| The work that I did made it impossible to wear the device so I had to take it off  | 1% | 2% |
| Other | 16% | 85% |
| **Any issues wearing the device** |  |  |
| No, I didn’t have any problems wearing the device today  | 94% | 88% |
| Wearing the device was itchy, irritating, uncomfortable, or cumbersome | 3% | 8% |
| I was not feeling well today | 0% | 1% |
| I am not used to sleeping with the device on | 2% | 1% |
| My internet connect was not very good | 0% | NA |
| I couldn’t tell If the device battery ran out | 0% | NA |
| Other | 2% | 3% |
| **Checking Physical Activity (PA)**  |  |  |
| Checked PA today | 65% | NA |
| Checked one or two times | checked PA  | 44% | NA |
| Checked three or four times | checked PA  | 25% | NA |
| Checked more than four times | checked PA  | 31% | NA |

**Table A3** Estimated regression coefficients using linear hierarchical random-effects models. Standard Errors (SEs) are in square brackets. Sample restrictions for each of the 5 models are the following. Model 1: Full sample; Model 2: Fitbit and GENEActiv daily wear time greater than 1,000 minutes; Model 3: Fitbit and GENEActiv daily wear time greater than 1,200 minutes; Model 4: Participants wore Fitbit and GENEActiv for at least 1,000 minutes/day for at least 5 days; Model 5: Fitbit and GENEActiv daily wear time greater than 1,300 minutes. PA measurement was in gravity (g) or acceleration units (1 g=9.81 m/s2).

|  |  |
| --- | --- |
|  | Average PA level |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
| **Device worn** (Ref.: GENEActiv) |  |  |  |  |  |
| Fitbit  | 11.719\*\*\* | 7.885\*\*\* | 7.698\*\*\* | 7.317\*\*\* | 8.812\*\*\* |
|  | [1.887] | [1.747] | [1.792] | [1.892] | [1.877] |
| **Month (Ref.: July)** |  |  |  |  |  |
| August | -12.165 | -13.144 | -12.216 | -14.799 | -11.189 |
|  | [11.093] | [10.522] | [10.688] | [12.269] | [10.757] |
| September | -12.358 | -5.819 | -2.974 | -4.794 | -3.394 |
|  | [11.047] | [10.483] | [10.634] | [12.173] | [10.692] |
| December | -43.338\*\*\* | -39.693\*\*\* | -36.686\*\*\* | -38.476\*\*\* | -37.117\*\*\* |
|  | [10.541] | [10.013] | [10.126] | [11.537] | [10.183] |
| January | -18.339\* | -16.117 | -17.652\* | -9.797 | -18.914\* |
|  | [10.986] | [10.444] | [10.709] | [12.328] | [10.804] |
| February | -28.394\*\*\* | -24.074\*\* | -20.329\*\* | -19.528 | -20.002\* |
|  | [10.607] | [10.097] | [10.263] | [11.922] | [10.318] |
| **Gender (Ref.: Male)** |  |  |  |  |  |
| Female | -14.559\* | -11.666 | -9.224 | -8.832 | -8.714 |
|  | [7.536] | [7.175] | [7.294] | [8.580] | [7.337] |
| **Age (Ref.: 50-64)** |  |  |  |  |  |
| Age 65+ | -13.699\* | -10.087 | -7.917 | -7.298 | -8.070 |
|  | [7.359] | [6.977] | [7.029] | [8.246] | [7.066] |
| **Education (Ref.: GED)** |  |  |  |  |  |
| Some college | -7.988 | -10.833 | -13.393 | -17.305 | -10.655 |
|  | [13.121] | [12.446] | [12.509] | [14.875] | [12.614] |
| College and above | -4.492 | -2.615 | -3.593 | -3.618 | -0.151 |
|  | [12.508] | [11.845] | [11.846] | [14.072] | [11.959] |
| Constant | 168.871\*\*\* | 163.486\*\*\* | 159.058\*\*\* | 161.688\*\*\* | 154.824\*\*\* |
|  | [14.378] | [13.675] | [13.828] | [16.972] | [13.951] |
| Participant days (N) | 1065 | 966 | 891 | 840 | 822 |

\* p<0.10; \*\* p<0.05; \*\*\* p<0.01.